

PCT/PTO 28 DEC 2004  
PCT/AU03/00846



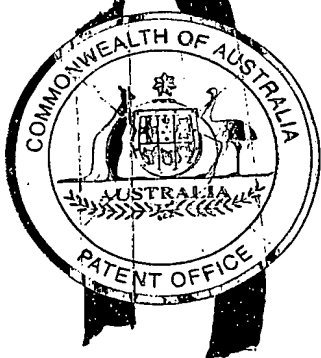
0/519907

REC'D 24 JUL 2003

WIPO PCT

Patent Office  
Canberra

I, JULIE BILLINGSLEY, TEAM LEADER EXAMINATION SUPPORT AND SALES hereby certify that annexed is a true copy of the Provisional specification in connection with Application No. PS 3312 for a patent by INTELLECT HOLDINGS LIMITED as filed on 28 June 2002.



WITNESS my hand this  
Eleventh day of July 2003

*J. Billingsley*

JULIE BILLINGSLEY  
TEAM LEADER EXAMINATION  
SUPPORT AND SALES

**PRIORITY  
DOCUMENT**

SUBMITTED OR TRANSMITTED IN  
COMPLIANCE WITH RULE 17.1(a) OR (b)

28. JUN. 2002 23:30

WRAY & ASSOCIATES

NO. 8184 P. 5/30

55

P/00/009 28/5/91  
Regulation 3.2

ORIGINAL

AUSTRALIA

*Patents Act 1990*

## PROVISIONAL SPECIFICATION

Invention Title: A Method for Transacting a Trade Electronically, and a System  
Therefor

The invention is described in the following statement:

- 2 -

**"A Method for Transacting a Trade Electronically, and a System Therefor"****Field of the Invention**

This invention relates to a method for electronically transacting a trade between a customer and a commercial provider, and a system therefor. The invention has particular utility with existing electronic funds transfer (EFT) systems used by merchants and banking systems or organisations that act on their behalf, and is concerned with extending the range of services and commercial providers that may be offered by merchants making use of such EFT systems to their customers for increasing business.

- 10 Throughout the specification, unless the context requires otherwise, the word "comprise" or variations such as "comprises" or "comprising", will be understood to imply the inclusion of a stated integer or group of integers but not the exclusion of any other integer or group of integers.

The term "EFTPOS" is an acronym for Electronic Funds Transfer Point Of Sale.

- 15 The term a "commercial provider" is defined to mean a provider of a service or a product, or a combination of both, to a customer.

- The term a "business broker" is defined to mean an entity that controls a business transaction between a customer requiring a service or product and a commercial provider of that service product. The term broker is used inconsistently. Sometimes it is a broker, sometimes a commercial broker and sometimes a business broker.

The term a "payment system" is defined to mean any acquiring banking system for providing the transfer of funds.

- 3 -

### Background Art

Presently, EFT or EFTPOS terminals are used widely by merchants to effect electronic payment of goods purchased or services provided by them to a customer at the point of sale. The EFT terminals are sometimes owned by the merchant, typically in the case of a large retail or service organisation having many outlets or points of sale where transactions for the purchasing of goods or services can occur. Alternatively, the EFT terminal is owned by a broker having a variety of merchants or a number of financial institutions as customers, whereby the broker establishes contractual relationships between the merchants and the financial institutions for the provision of EFT or EFT related services, whereby customers of the merchant can transfer funds electronically at point of sale from an account they have with a particular financial institution to the merchant for the purposes of paying for their trade with the merchant. Alternatively still, and commonly the case in many countries of the world, the EFT terminal is owned by a financial institution for the provision of EFT services to customers of merchants, as the acquiring bank for transferring funds in relation to electronic trade of the merchant. In this arrangement, the financial institution will have a contractual relationship between other financial institutions and specific credit card associations to provide for the electronic transfer of funds in relation to the trade of select merchants or brokers of such EFT services.

In the case of the EFT terminal being owned by a broker or a financial institution, a percentage of the funds transferred from the account of the customer for payment of a product acquired or a service performed is indirectly paid as a commission to the terminal owner, or alternatively the terminal owner may act on a financial institution's behalf and receive a fixed fee calculated on some agreed upon basis. In the case of credit card purchases that may also be transacted using an EFT terminal, a percentage of the funds transferred from the account of the customer may not only be paid as a commission to the terminal owner, but also to the credit card service provider, or alternatively again, the terminal owner and/or credit card service provider may act on a financial institution's behalf and receive a fixed fee calculated on some agreed upon basis.

- 4 -

Electronic funds transactions using EFT terminals pervades the retail goods and services sector in most countries of the world, and in certain areas surpasses the use of real money or cash for payment of goods and services.

5 With the established networks created for EFTPOS transactions, and the intelligence of the EFT terminals themselves, it is possible to extend the utility of the EFT terminals to extend the range of services available to the customer and the merchant alike beyond just financial transactions. For example certain value added or ancillary goods or services to supplement the services provided by the merchant may be provided, such as the provision of tickets to particular  
10 entertainment venues, lottery tickets, government and utility bill paying services, vouchers etc. In order to make these services available is not trivial. These are high security systems owned by large organisations, often regulated at a national level.

Accordingly the present invention is concerned with providing a workable system  
15 and methodology for the provision of such value added services.

#### **Disclosure of the Invention**

It is an object of the present invention to provide for transacting a trade involving a product or service provided by a commercial provider to a customer using an EFT terminal of a merchant, where the commercial provider may be remote of  
20 the merchant

In accordance with one aspect of the present invention, there is provided a method for electronically transacting a trade between a commercial provider and a customer of a merchant and for electronically paying all of the participants involved with enabling the transaction from the payment made in consideration of  
25 the trade, comprising:-

a business broker contracting a commercial provider to provide a service or product to a potential customer of a merchant whereby the transaction is to be performed electronically;

- 5 -

the business broker contracting an owner of an terminal device provided with the merchant to offer the service or product on the terminal device, the owner having a payment system established with the terminal device;

the merchant offering the service or product to a customer of the merchant by  
5 means of the terminal device provided to the merchant;

electronically transacting for a customer desiring to purchase the offered service or product, the provision of that service or product, and the customer paying for same;

electronically enabling the provision of the transacted service or product by the  
10 commercial provider upon confirmation of the payment by the customer; and

electronically distributing prescribed proportions of the payment in accordance with the contractual arrangements to the commercial provider, the merchant, the terminal owner and the business broker.

Preferably, the terminal device is an EFT terminal. Alternatively, the device may  
15 be a mobile telephone or portable digital assistant.

Preferably, the business broker is the provider of the electronic transacting for the provision of the service or product with the owner of the Terminal device.

Preferably, the business broker is the provider of the electronic enabling of the transacted service or product with the commercial provider.

20 Preferably, the business broker is the provider of the electronic distribution of the funds with the payment system.

Preferably, the business broker contracts with the merchant to pay the merchant a sales commission for products that the merchant is able to sell to a customer. Alternatively the merchant may pay a fee to the business broker for some service  
25 that adds value to the merchant's business.

- 6 -

Preferably, the primary payment for the service or product is paid for by way of an electronic transfer of funds from the payment system associated with the EFT terminal\_or a payment system associated with the business broker. Alternatively, primary payment for the service or product may be paid for directly by the  
5 customer. In either case, the method preferably includes the terminal device communicating the particular manner of the transacting payment to the business broker, and the business broker effecting the electronic distribution of the prescribed proportion based on the manner of such payment.

10 In accordance with another aspect of the present invention, there is provided a system for electronically transacting a trade between a commercial provider and a customer of a merchant and for electronically paying all of the participants involved with enabling the transaction from the payment made in consideration of the trade, comprising:-

15 a host transaction engine for controlling electronic transactions between a business broker, a merchant, a customer of the merchant, a commercial service provider and a terminal device owner;

a terminal device for connection to the host transaction engine, the terminal device being provided with the merchant and associated with a payment system established with the terminal device by an owner thereof for the purposes of  
20 performing electronic transactions in connection with the trade of the merchant; and

a provider system for connection to the host transaction engine, the provider system being adapted to provide for communications between the host transaction engine and the commercial provider to enable the provision of a  
25 transacted service or product;

wherein the host transaction engine has enabling means to electronically enable the provision of the transacted service or product by the commercial provider in response to confirmation of the customer paying for the same; and

- 7 -

said host transaction means has paying means to electronically account for and distribute prescribed portions of funds to the commercial provider, the merchant and the business broker in accordance with predetermined contractual arrangements with these parties.

- 5 Preferably, the terminal device is an EFT terminal. Alternatively, the device may be a mobile telephone or portable digital assistant.

Preferably, the host transaction engine also provides for an electronic transfer of funds from the payment system in response to a transaction in relation to the provision of a commercial provider's service or product. In such cases, a  
10 payment system is connected to the host transaction engine, the host transaction engine being adapted to provide for communications with the payment system to enable payment for a transacted service or product.

Preferably, primary payment for the provision of the service or product transacted is effected directly between the terminal device of the merchant and the payment  
15 system, wherein the host transaction engine effects subsequent payment of the commercial provider and the terminal owner.

Preferably, the system includes a payment system server for connection to the host transaction engine, the payment system server providing for an electronic transfer of funds from the payment system in response to a transaction in relation  
20 to the provision of a service or product communicated between the EFT terminal and the host transaction engine, and between the host transaction engine and the payment system, as authorised by the payment system.

Preferably, the host transaction engine performs the control in accordance with a dedicated process model prescribed for transactions concerning the particular  
25 commercial provider.

Preferably, the host transaction engine distributes prescribed proportions of the electronic transferred funds in accordance with agreed upon arrangements with



- 8 -

the commercial provider, the merchant, the terminal owner and the business broker.

Preferably, the business broker is the provider of the electronic transacting for the provision of the service or product with the owner of the terminal device.

- 5 Preferably, the business broker is the provider of the electronic enabling of the transacted service or product with the commercial provider.

Preferably, the business broker is the provider of the electronic distribution of the funds with the payment system.

- 10 Preferably, the primary payment for the service or product is paid for by way of an electronic transfer of funds from the payment system associated with the EFT terminal or a payment system associated with the business broker. Alternatively, primary payment for the service or product may be paid for directly by the customer. In either case, preferably the terminal device communicates the particular manner of the transacting payment to the host transaction engine, and  
15 the host transaction engine effects the electronic distribution of the prescribed proportion based on the manner of such payment.

#### **Brief Description of the Drawings**

- The invention will be better understood in the light of the following description of one specific embodiment thereof. The description is made with reference to the  
20 following drawings, wherein:-

Figure 1 is block diagram of the general system showing the participants and the general infrastructure involved in transacting a trade in accordance with the present embodiment;

- 25 Figure 2 is a block diagram/flow chart showing the main functional components of the business system;

- 9 -

Figure 3 is a block diagram showing the main components of the host transaction engine and its deployment;

Figure 4 is a screen display of a process modelled using the host process model of the host transaction engine;

5 Figure 5 is screen display of a dialog box showing the message destinations as entered into the graphical process designer;

Figure 6 is a screen display of a table showing the input and output message locations of the message designer; and

10 Figure 7 is a block diagram/flow chart of the bill payment example described herein.

#### **Best Mode(s) for Carrying Out the Invention**

The best mode for carrying out the invention is described in the following specific embodiment which is directed towards a business system comprising a conventional data communications network involving terminal devices in the form of EFT terminals and a payment system, but incorporating a business broker and commercial providers that interact with the communications network in accordance with a particular business methodology to achieve the purpose of the invention.

15 As shown in Figure 1 of the drawings, the business system 11 comprises various participants including:

a business broker 13 that operates the business system;

a payment system involving particular financial institutions 15 that provide for the electronic transfer of funds in respect of trading transacted over the communications network;

- 10 -

various merchants 17 that either own EFT terminals 19 or subscribe to the use of same to enable payment of goods or services traded by the merchants;

5 customers 21 of the merchants 17 that purchase the goods or services traded by the merchants; and

various commercial providers 23 that trade goods or services ancillary to the trade of the merchant 17 to the customers 21 of the merchant, and which are transacted over the network from a remote location.

10 Although not shown, the business system 11 also includes a terminal owner who contracts with or is an acquiring financial institution 15 having a contractual agreement with various Issuing financial institutions that have banking accounts of prospective customers 21 of merchants 17, or credit card providers that have access to other issuing financial institutions that have such banking accounts to establish the payment system. Accordingly, in the case of a terminal owner not  
15 being a merchant 17, the terminal owner markets the use of their EFT terminals 19, configured for secure data communications with an established payment system, to merchants 17 that may be desirous of making available the use of electronic funds transfer to customers 21 for the payment of any trade transacted between the merchant 17 and its customers 21. A merchant 17 acquiring an EFT  
20 terminal 19 from a terminal owner is appropriately licensed and contractually bound in the secure use of the terminal.

In the case of the terminal owner being a merchant 17 themselves, such as in the case of a major retailer, obviously the additional contractual link between the terminal owner and a merchant is non-existent and the merchant takes on the  
25 responsibilities of the terminal owner in establishing the payment system with the financial institutions directly.

The business broker 13 usually, but not essentially, is a party who has a customer base made up of terminal owners, being normally concerned with the supply and maintenance of EFT terminals 19 to terminal owners and their

- 11 -

communications from a merchant site with the particular payment system established by the terminal owner.

In the present embodiment, the business broker 13 markets the business system 11 to prospective commercial providers that may be suitable for providing value adding ancillary goods or services to the existing service or services of merchants 17 having EFT terminals 19, which value adding or ancillary services may be transacted and paid for using the particular EFT terminal 19 of the merchant by an electronic funds transfer of funds from the banking account of the customer to the merchant, or by a direct payment such as cash to the merchant. Thus the merchant 17 can market these ancillary goods or services to its customers 21 in order to increase the business of the merchant. In either case, the business broker 13 is notified by the manner of such payment.

Examples of these ancillary services may include the provision of tickets to particular entertainment venues, lottery tickets, government and utility bill paying services, vouchers etc.

The business broker 13 establishes broking agreements with agreeable commercial providers 23 for enabling the provision of the particular service or product of the commercial provider, when a trade involving same is transacted by a customer 21.

On establishing a portfolio of commercial providers 23, the business broker 13 is able to market the provision of the goods and services of these commercial providers 23 to its customer base of terminal owners.

The business broker 13 establishes service agreements with terminal owners and, as appropriate, selected merchants 17 of the terminal owners, to enable the provision of specific goods or services of selected commercial providers 23 to be transacted using the particular EFT terminal 19 of the select merchant.

Once these agreements are put into place with the commercial providers 23, the terminal owners and the merchants 17, a dedicated process model prescribed for

- 12 -

transactions concerning a particular commercial provider 23, terminal owner and/or merchant 17 is implemented on the business system 11. After successful testing, the process model is made active and immediately allows for business transactions to be made concerning the new commercial provider 23, terminal  
5 owner and/or merchant 17, without detracting from the previous and ongoing operation of the business system.

The broker and service agreements, apart from addressing the requisite terms and conditions for establishing the contractual relationships between the various parties, are also concerned with establishing a payment system for the various  
10 participants in the business system, which devolves from the funds transferred from a customer's banking account for payment of a particular service or product transacted with the EFT terminal 19 of the merchant 17 in question.

In the present embodiment, the payment system is based on a model centring around the business broker 13, but which stems from payment received by the  
15 commercial provider 23 from the customer 21 for the delivery of the service or product provided by the commercial provider. However, other embodiments may be envisaged still involving the business system whereby the payment is made by the customer directly to the merchant 17, eg by way of a cash payment, and not by way of the electronic transfer of funds involving the payment system  
20 associated with the EFT terminal.

In either case, once the payment is made for the product or service traded and transacted, the commercial provider 23 pays a commission to the service broker, the business broker 13 pays a commission to the merchant 17, whose customer 21 purchased the particular product or service, and if appropriate, the business  
25 broker pays a commission to the terminal owner, whose EFT terminal 19 and payment system was used to enable the transaction. The payment to the commercial provider 23 is paid either by way of an EFT from the banking account of the customer 21 to the banking account of the commercial provider 23 by way of the business broker 13 and the payment system associated with the EFT  
30 terminal 19 in the case of a primary payment involving an EFT transaction by the

- 13 -

customer, or by way of an EFT from the banking account of the merchant 17 to the commercial provider 23 via the business broker 13 and the payment system associated therewith, in the case of a direct primary payment made by the customer 21 to the merchant 17.

- 5 These commissions can either be transaction or account based, at the discretion of the parties involved.

The technical infrastructure 33 for the business system 11, as shown in Figures 1 and 2, generally comprises:

10 a host transaction engine 25 for running on a host server 35 to which the EFT terminals 19 are connected over part 27a of a data communication network;

15 any of a number of payment systems 39 associated with one or more EFT terminals for running on banking servers 29 belonging to each of the various financial institutions 15, the banking servers 29 being connected to the host transaction engine 25 over another part 27b of the data communication network, which in itself is interconnected by way of a link 27ab. so that the EFT terminals can run a financial application 40 and be connected for direct communication with the banking system separate from the host transaction engine;

20 an application 42 on the host transaction engine 25 that allows running of a plurality of electronic service packages (ESP's) 41, sourced from commercial providers 23, on EFT terminals 19 to allow merchants 17 to offer products or services of the commercial providers 23 that are also connected to the host transaction engine 25, but over a further part 27c of the communication network;

25

an architecture 37 for running on the EFT terminals 19 to allow multiple applications to run on an EFT terminal without jeopardising the security of an application;

- 14 -

a secure access module (SAM) 43 for loading on to each EFT terminal 19 to provide data security commensurate to that required for financial transaction purposes and to provide the merchant identity for contractual and operational purposes

- 5 a standard message format 45 for interaction between the EFT terminals 19 and the host transaction engine 25; and

a plurality of adapters 47 that allow the host transaction engine 25 to communicate between virtually any commercial provider system 31, merchant EFT terminal 19 and payment system 39.

- 10 The host transaction engine 25 is an application written in Java™ that includes a set of tools to broker commercial provider's services that can be rapidly deployed over the EFT terminals. In this sense the host transaction engine 25 effectively functions as a gateway to the ESP's. Being written in Java™, the host transaction engine 25 can consequently be deployed on a variety of host servers  
15 – from a standalone PC to a Corporate Operations Centre. Java™ makes the application more platform independent, offering options in Microsoft Windows™ and also in UNIX.

- As shown in Figure 3 of the drawings, the host transaction engine 25 is particularly designed to include a process automation engine (PAE) 49, a  
20 graphical process designer 51, a database engine 53, a reporting system 55, an access control and process management system 57 and a graphical message designer 59. As can be seen, it is designed with scalability in mind, where it can operate between any number of computers. In addition, it provides for redundancy, to safeguard against failure. The host transaction engine 25 shown  
25 is capable of operating with various types of terminal devices 19, including integrated EFT terminals 19a, stand alone terminals 19b and other devices 19c such as mobile telephones and personal digital assistants.

The adapters 47 are divided up into a host-to-provider service adapter 47a that translates messages to the native format of a provider system 31, an EFT

- 15 -

terminal-to-host device adapter 47b that converts messages 48 from an EFT terminal-to-host message format and also handles some security for the business system 11, and a host-to-payment system adapter 47c that provides for secure communications between the host transaction engine 25 and the  
5 payment system 39 associated therewith.

The PAE 49 is a transaction engine that operates as an enabling means for organising work between commercial provider systems 31, payment systems 39 and ETF terminals 19, and a paying means to effect payment for transactions undertaken using the system between the same. The design of the engine is fast  
10 and scalable.

The host transaction engine 25 has a number of high-level processes that highlight the ease of use of the business system. Some of the most important of these, in the case of the present embodiment, are those associated with the messaging facility that provide for the standard format message format 45 to be  
15 used and the designing of messages to deliver ESP's 41 over multiple devices, and those associated with the graphical process designer 51, which are used for the purposes of creating a new ESP 41 for a prospective commercial provider 23.

In the present embodiment, the messaging facility is based on industry standard  
20 XML messaging that not only makes it easier to deliver ESP's 41 over multiple EFT terminals, but also eases integration with legacy systems. The graphical message designer 59 allows a user to drag and drop fields to change the format and content of messages. With the message designer 59, a message 48 can be changed to the friendliest possible format for a payment system 39 or  
25 commercial provider system 31.

With respect to the graphical process designer 51, this allows a user to design the passage of information through the payment systems 39 and commercial provider systems 31 on a flow chart.



- 16 -

Describing this in more detail, with reference to Figures 4 to 6, the need to initiate an ESP 41 for a commercial provider 23 will typically begin with a description of the service or product to be offered. This description then becomes the input to the new ESP process.

5 The process used to create a new ESP 41 usually consists of five standard steps:-

- 1) Draw a transaction host engine process model.
- 2) Configure the destination of messages within the process model.
- 3) Design the content of messages.
- 10 4) Launch the process.
- 5) Manage the process.

An example of the implementation of this process will now be described as indicated in Figure 7. In this example, a customer 21 wishes to deliver a Bill Payments ESP 41 over EFT terminals 19 (step 1 in Fig 7). The commercial  
15 service provider indicates that the process would work as follows:

- (a) The EFT terminal 19 sends a request to pay a bill along with payment details, such as the credit card number, to the host transaction engine 25 (step 2 in Fig 7).
- (b) The host transaction engine 25 sends a request to the payment system  
20 39 for approval on the credit card payment (step 3). The credit card system returns an approval code (step 4).
- (c) The host transaction engine 25 then sends the Biller (the commercial provider 23) advice that a payment has been collected in a form that the Biller can easily integrate into a secure application program (step 5).

- 17 -

(d) The EFT terminal 19 is sent the approval code 48' to print on the receipt (step 7).

(e) If anything goes wrong in the process, an error message is sent to the terminal 19.

- 5 To implement this process, a Host Process Model that models this process is created by the host transaction engine 25.

As shown in Figure 4 of the drawings, the Host Process Model is created using special flow chart tools provided in the toolbox (element 1) of the graphical process designer 51 of the host transaction engine. The process steps (a) to (e) shown in the drawing are correspondingly referenced according to the process example described above. These process steps are simply dragged from the toolbox onto the workspace (element 2).

After drawing the process using the graphical process designer 51, the next step involves telling the host process model where each message 48 must be sent. In the present embodiment, to facilitate creating the model, the graphical process designer 51 is adapted for use with a graphical user interface incorporating a mouse. Moreover, the graphical process designer 51 is designed so that right clicking the mouse button whilst on any one of the process steps (a) to (e) will open a dialog box as shown in Figure 5. In the dialog box, the address of the computer to which the message should be sent is entered (element 4). The names of the messages 48 that will be sent to the adapters 47 are also entered in (elements 5 and 6).

In the particular example shown in Figure 5, step (b) from the example process is demonstrated, which is "send a message to the payment system for approval". The dialog box shows that it will find the payment system on <http://philipdell:7000/>, the name of the message 48 to send the payment system 39 is called "payment\_message\_request" and that it will receive a response from the payment system called "payment\_message\_response".

- 18 -

The final creation stage is the design of the particular messages 48 specified in the previous step. In the present embodiment, message design is a simple process using the graphical message designer 59. This is done by selecting a field that contains required data and dragging an arrow to where the data is  
5 desired to be placed. As shown in Figure 6, the user selects the authorisation code that has come back from the payment system 39 and places it in the message 48' that will be sent back to the payment terminal 19 for printing on the receipt.

Once all of the messages 48 have been designed using the host process model,  
10 a single button loads the process into the process automation engine 49. The system is now ready to go inside the host transaction engine's test environment. The process can be tested for stability and performance in a simulated environment that is provided by the host transaction engine 25. Once satisfied with testing of the process, it is simply a matter of switching the process on,  
15 inside the live environment. The moment that the process is switched on, it will answer calls from the EFT terminals requesting the ESP service.

Once the process is running, the host transaction engine provides a full set of reporting and management tools using the reporting system 55. The system administrator of the host transaction system 25 can monitor performance of  
20 processes on a live or historical basis. Merchants 17, commercial providers 23 and customers 21 can view the reports that are relevant to them on the Internet, on paper or via email.

As the business system 11 is involved with communicating with a payment system 39 electronically and transferring funds by electronic means, security is a  
25 fundamental requirement to be addressed in order for the system to be able to be implemented and operated in the real world. In the present embodiment, the security is built in to the business system 11 by way of a number of different elements.

Firstly, with respect to the domain between the host transaction engine and the  
30 EFT terminal, a SAM is slotted into EFT terminals using the business system.

- 19 -

The SAM contains cryptographic keys for channel encryption, message authentication and data encryption. The SAM module is consequently designed to support:

- proof of endpoint;
- 5      • message integrity checking;
- data stamping; and
- personal identification number (PIN) services.

With respect to the host transaction engine domain itself, three main security systems are provided. These are:

- 10      • access security, which is controlled through each component of the system on a user/group/role basis.
- perimeter security, which is maintained as a firewall – the firewall ensures that only certified user's Internet Protocol (IP) addresses can access relevant components of the system;
- 15      • password security, which ensures that all access to any component of the host transaction engine 25 is controlled by password and user name logins – password and user name logins will also support authentication using the SAM.

20      With respect to the domain between host transaction engine and the ESP, communication is secured by two systems. These include:

- perimeter security, as in the host transaction engine domain, is maintained as a firewall;
- additional security, which can be implemented in the ESP domain to support the requirements of the ESP commercial provider 23, or the
- 25      sponsoring financial institution.

- 20 -

Thus the provision of a SAM on the EFT terminal will ease the certification process with the terminal owner in each country by:

- 5       • providing a method of securing download to a terminal – the download mechanism ensures that a terminal sponsor is the only party capable of downloading applications to a terminal;
- providing a prompt table service – this ensures that the terminal sponsor is the only party capable of displaying text messages on the screen of the terminal.
- securely identifying the merchant 17 and holding their cryptographic keys.

10   Finally, data travelling through the host transaction engine 25 is captured in the database 53 and is securely made available to customers 21, merchants 17 and commercial providers 23 in reports.. These reports will be made accessible over the Internet, or other data communication network.

15   As a consequence of adopting the best mode, it shown be noted that there are many advantages. These include:

- 1)   With the ESP terminal application:
  - 20       a.   the ability to live update value added service products that can be sold on an EFTPOS terminal; and.
  - b.   securely manage a banking application next to such a dynamic application.
- 2)   With the EFT terminal 19 a SAM 43 that holds the security keys and personality of the business system application, which:
  - a.   legally binds the merchant who sells value added service offerings to the commercial broker and a debtors account. In the same

- 21 -

manner as would a mobile phone SIM card to a telecommunications company;

b. holds the cryptographic keys outside the financial system;

c. secure way of giving the merchant an identity that is outside a bank's system.

5

3) With the host transaction engine business system or model – the present method of brokering deals between commercial providers 23 and terminal owners, to sell services over EFT terminals or devices. This involves:

a. approaching a commercial provider offering enhanced distribution.

10

b. signing a contract where the commercial provider pays the commercial broker for access to the distribution channel on a revenue share or fee for transaction basis.

c. selling the services that the commercial provider sells to the commercial broker, to the terminal owner.

15

4) The ability to update applications on EFT terminals while the terminal remains live and capable of still operating any financial application.

20

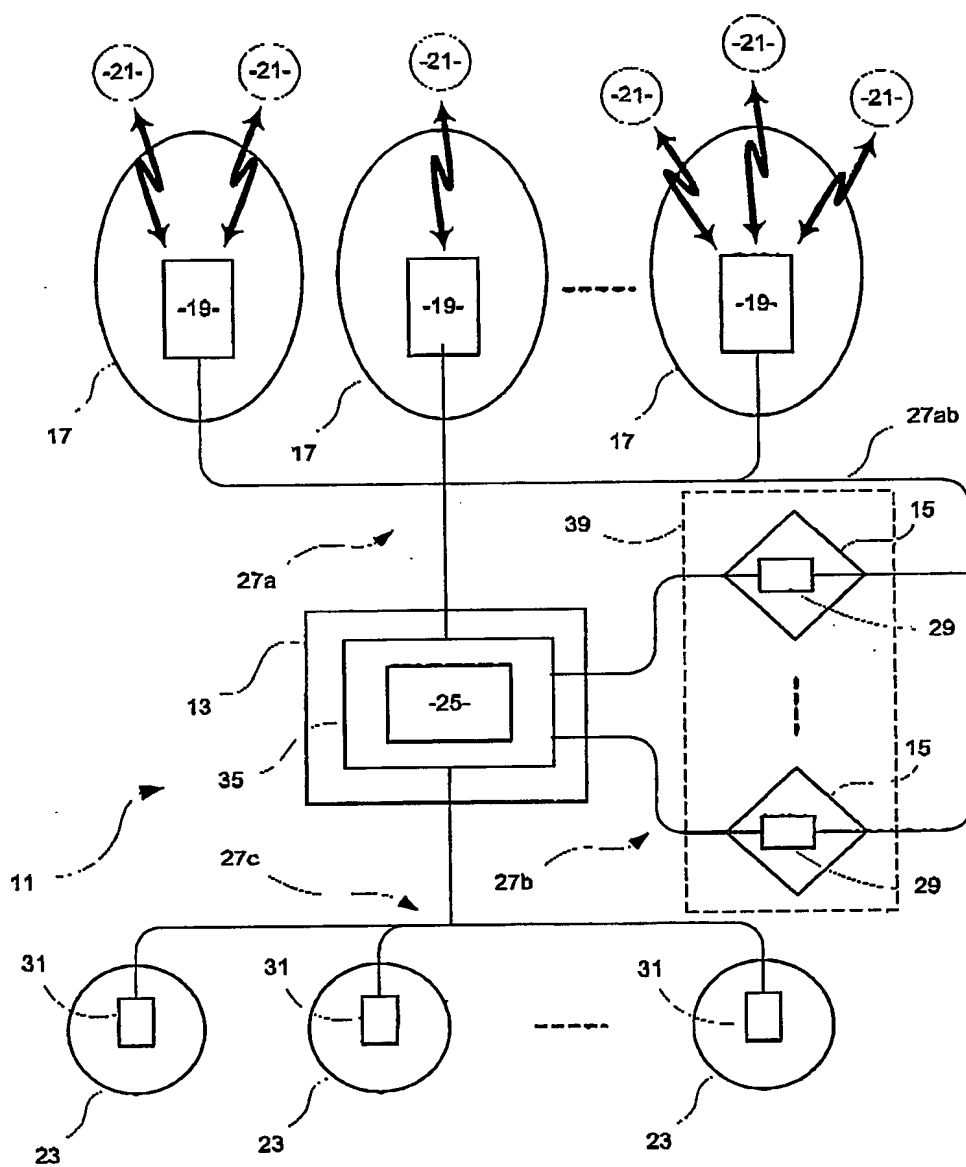
It should be appreciated that the scope of the particular invention is not limited to the particular embodiment described herein and that many modifications or adaptations can be incorporated so as to further enhance or modify the system to a particular circumstance, but which do not depart from the spirit of the invention and thus remain within its scope. In particular, the present invention is not limited to application with EFT terminals, and indeed may be used with alternative devices such as mobile devices

- 22 -

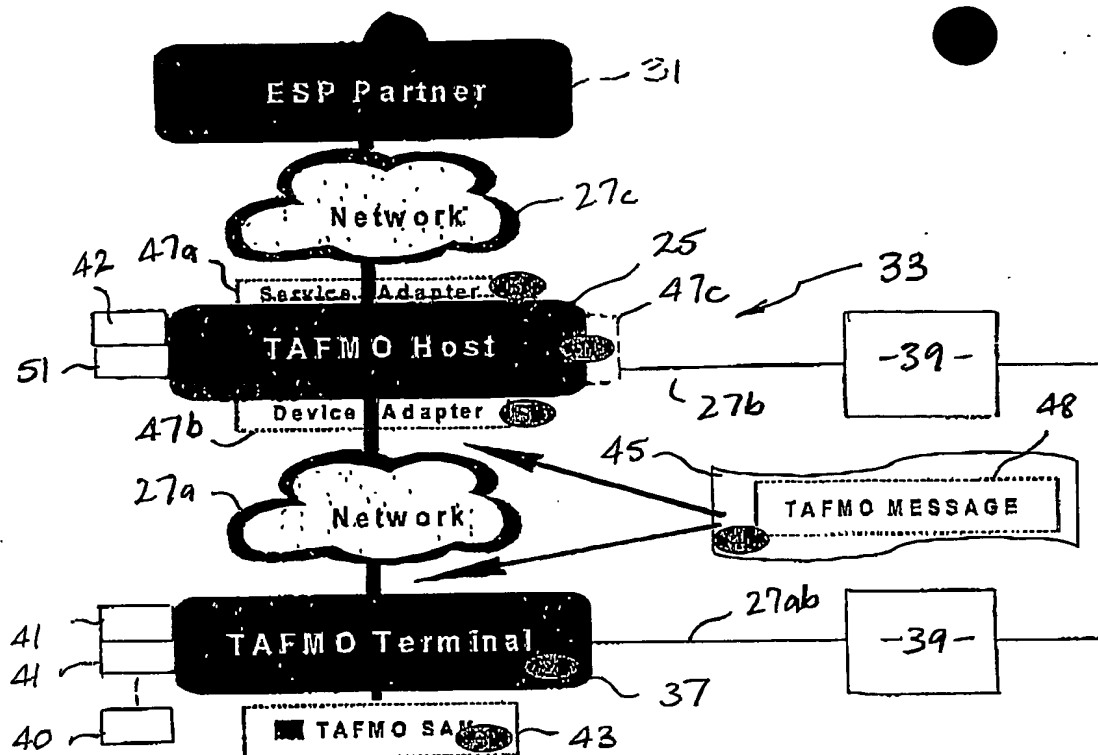
Dated this 28<sup>th</sup> day of June 2002.

Intellect Holdings Limited

Wray & Associates  
Perth, Western Australia  
Patent Attorneys for the Applicant(s)

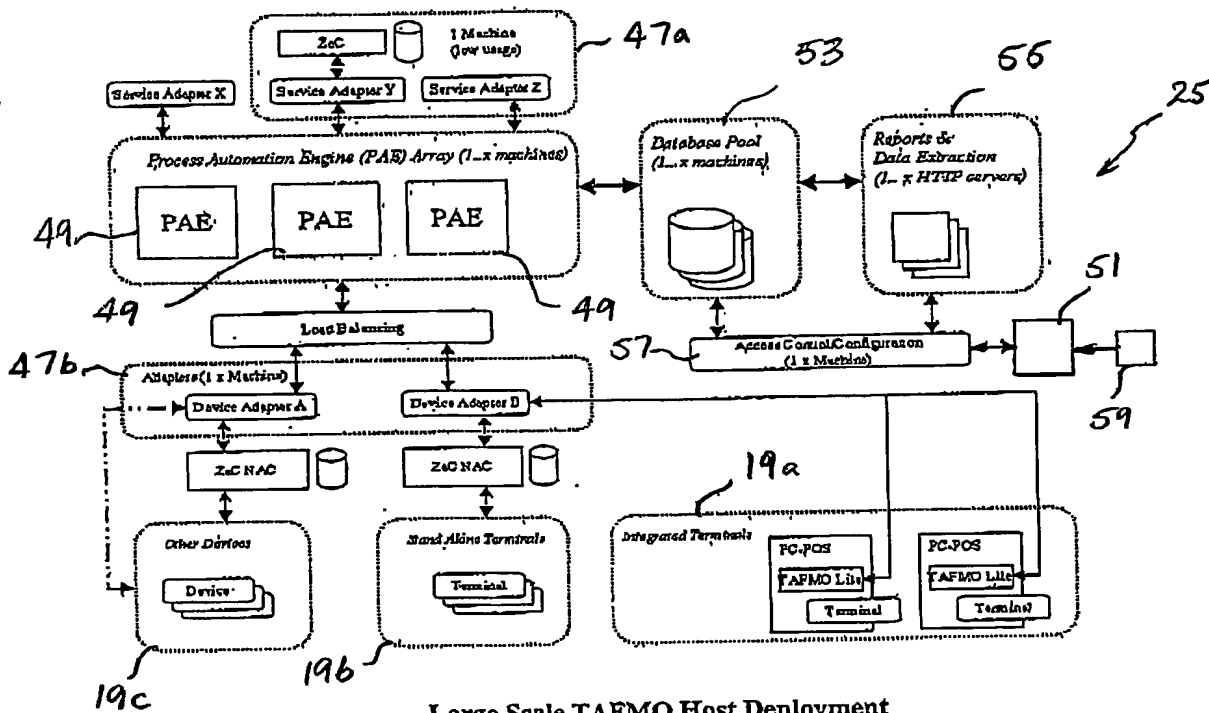
**Fig 1**





The Five Components of the TAFMO Technology System

FIG 2



Large Scale TAFMO Host Deployment

FIG 3

BEST AVAILABLE COPY

BEST AVAILABLE COPY

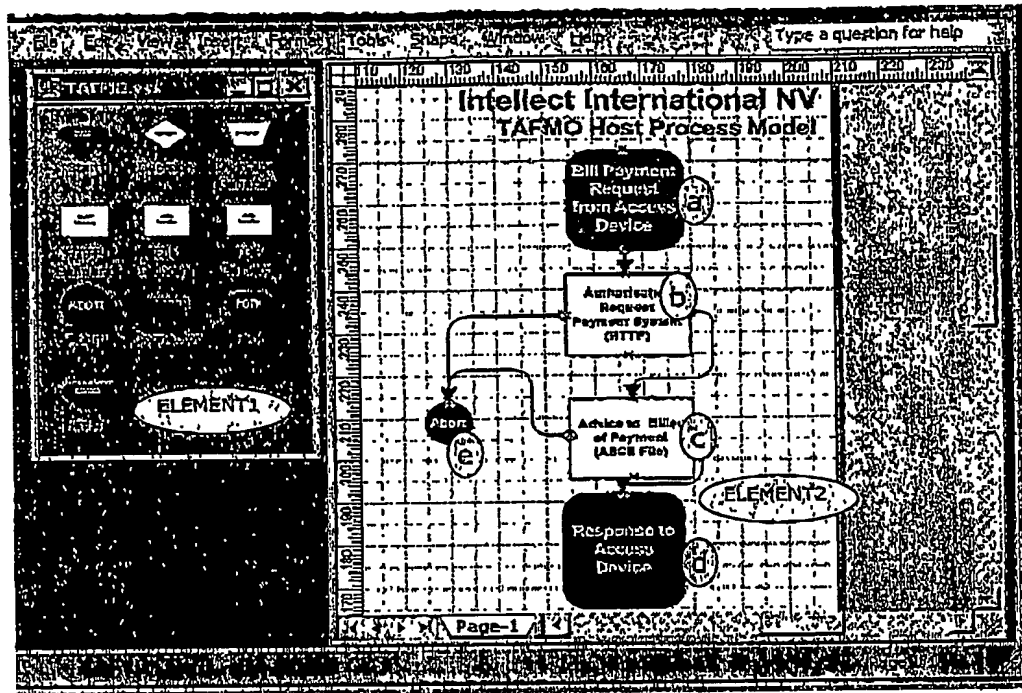
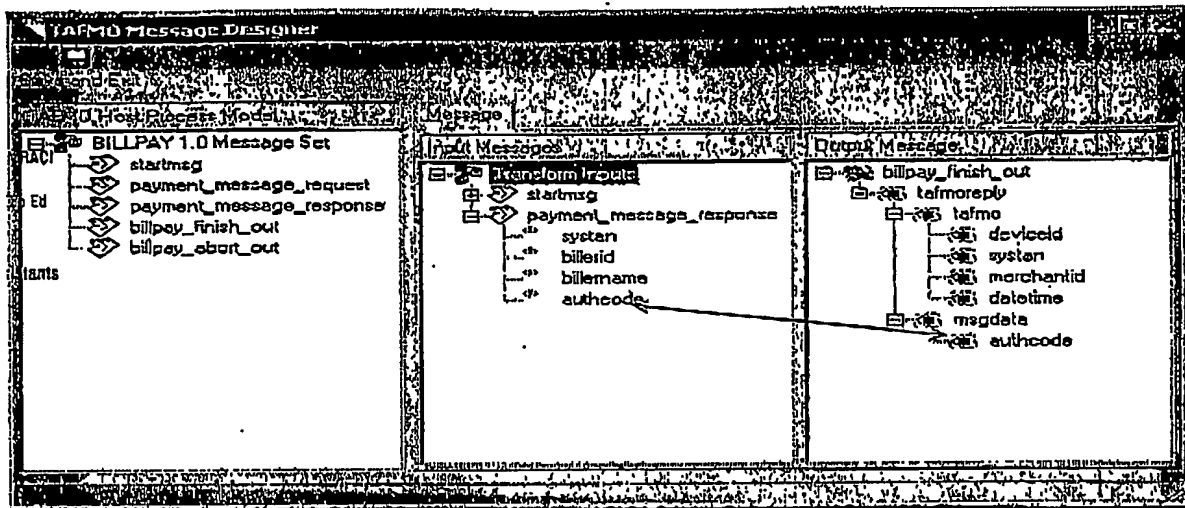


FIG 4

The screenshot shows a "Custom Properties" dialog box for an adapter. The "Adapter Address" is set to "http://philipdell7000". The "Group Name" is "paygate". The "Incoming Message Name" is "payment\_message\_request" and the "Outgoing Message Name" is "payment\_message\_response". The "Timeout" is set to "600000". The "Message Owner ID" is "paygate". The "Prompt" field contains the text: "Enter the full URL of the HTTP Adapter, including HTTP Port if not 80". The "OK" button is highlighted.

Message Destinations entered in the Graphical Process Designer

FIG 5



The TAFMO Message Designer

FIG 6

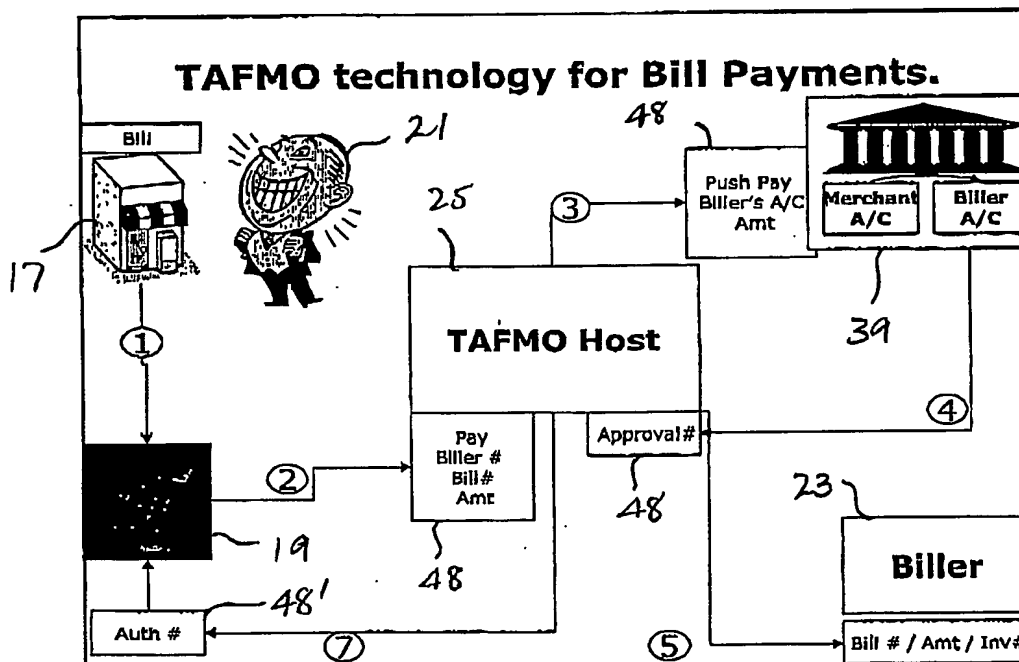


FIG 7

BEST AVAILABLE COPY